

Amendments of claims (this listing replaces all prior versions):

1. (Currently Amended) A method comprising:

incorporating a multi-port switch into a multi-node computer system;

assigning at least a first port of the multi-port switch to a first domain of the nodes;

[[and]]

assigning at least a second port of the multi-port switch to a second domain of the nodes, the first domain of the nodes and the second domain having separate and independent memory structures

delivering transactions that are received by the multi-port switch and are identified as associated with the first domain, to the at least a first or more ports assigned to the first domain;

monitoring broadcast transactions generated for the first domain; and

transmitting these broadcast transactions to only the at least a first or more ports assigned to the first domain.

2. (Canceled)

3. (Original) The method of claim 1 further comprising:

connecting nodes associated with the first domain to the at least a first port assigned to the first domain.

4. (Canceled)

5. (Previously Presented) The method of claim 1 further comprising:

delivering transactions, which are received by the multi-port switch and are identified as associated with the second domain, to the at least a second or more ports assigned to the second domain.

6. (Previously Presented) The method of claim 1 further comprising:

connecting nodes associated with the second domain to ports assigned to that second domain.

7. (Original) The method of claim 1 further comprising:

assigning at least a third port of the multi-port switch to a third domain; and

connecting nodes associated with the third domain to ports assigned to that third domain.

8. (Original) The method of claim 7 further comprising:

delivering transactions, which are received by the multi-port switch and specify the third domain, to the at least a third or more ports assigned to the third domain.

9. (Canceled)

10. (Previously Presented) The method of claim 3 further comprising:

maintaining a coherency of a cache memory for the first domain.

11. (Previously Presented) The method of claim 10 wherein said maintaining the coherency includes:

monitoring a caching of system memory by the nodes associated with the first domain;

and

informing the nodes requiring a cache update that the content of the system memory they have cached has changed.

12. (Currently Amended) A domain partitioning process for creating multiple domains in a multi-node computer system comprising:

a first domain port assignment process for assigning at least a first port of said a multi-port switch to a first domain; [[and]]

a second domain port assignment process for assigning at least a second port of the multi-port switch to a second domain of the nodes, the first domain of the nodes and the second domain of the nodes having separate and independent memory structures; and

a first domain transaction routing process for routing transactions, which are received by said multi-port switch and specify the first domain, to one or more ports assigned to the first domain

a broadcast partitioning process for monitoring broadcast transactions generated for the first domain and transmitting these broadcast transactions to only the one or more ports assigned to the first domain.

13-14. (Canceled)

15. (Previously Presented) The domain partitioning process of claim 12 further comprising:

a second domain transaction routing process for routing transactions, which are received by the multi-port switch and specify the second domain, to one or more ports assigned to the second domain.

16. (Previously Presented) The domain partitioning process of claim 12 further comprising:

a third domain port assignment process for assigning at least a third port of the multi-port switch to a third domain.

17. (Original) The domain partitioning process of claim 16 further comprising:

a third domain transaction routing process for routing transactions, which are received by the multi-port switch and specify the third domain, to one or more ports assigned to the third domain.

18. (Canceled)

19. (Currently Amended) The domain partitioning process of claim 12 ~~claim 13~~ further comprising:

a domain cache coherency process for monitoring the caching of system memory by the nodes associated with the first domain, and informing nodes requiring a cache update that the content of the system memory they have cached has changed.

20. (Currently Amended) A domain partitioning process for creating multiple domains in a multi-node computer system that includes a multi-port switch containing ports, the process comprising:

a port assignment process for assigning at least a first port of said multi-port switch to a first one of a plurality of domains; [[and]]

a second port assignment process for assigning at least a second port of the multi-port switch to a second one of a plurality of domains, the first one of a plurality of domains and the second one of a plurality of domains having separate and independent memory structures; and

a first domain transaction routing process for routing transactions, which are received by said multi-port switch and specify the first domain, to one or more ports assigned to the first domain

a broadcast partitioning process for monitoring broadcast transactions generated for the first domain and transmitting these broadcast transactions to only the one or more ports assigned to the first domain.

21. (Original) The domain partitioning process of claim 20 further comprising:  
a transaction routing process for routing domain-specific transactions received by said multi-port switch to one or more ports assigned to the specified domain.

22. (Currently Amended) A computer program product residing on a computer readable medium having a plurality of instructions stored thereon which, when executed by a processor, cause that processor to:

assign at least a first port of a multi-port switch to a first domain;

assign at least a second port of the multi-port switch to a second domain, the first domain and the second domain having separate and independent memory structures; [[and]]

route transactions, which are received by the multi-port switch and specify the first domain, to one or more ports assigned to the first domain; and

deliver transactions that are received by the multi-port switch and are identified as associated with the first domain, to the at least a first or more ports assigned to the first domain;

monitor broadcast transactions generated for the first domain; and

transmit these broadcast transactions to only the at least a first or more ports assigned to the first domain.

23. (Original) The computer program product of claim 22 wherein said computer readable medium is a read-only memory.

24. (Original) The computer program product of claim 22 wherein said computer readable medium is a hard disk drive.

25. (Currently Amended) A processor and memory configured to:

assign at least a first port of a multi-port switch to a first domain;

assign at least a second port of the multi-port switch to a second domain, the first domain and the second domain having separate and independent memory structures; [[and]]

route transactions, which are received by the multi-port switch and specify the first domain, to one or more ports assigned to the first domain;

deliver transactions that are received by the multi-port switch and are identified as associated with the first domain, to the at least a first or more ports assigned to the first domain; monitor broadcast transactions generated for the first domain; and transmit these broadcast transactions to only the at least a first or more ports assigned to the first domain.

26. (Original) The processor and memory of claim 25 wherein said processor and memory are incorporated into a network server.

27. (Original) The processor and memory of claim 25 wherein said processor and memory are incorporated into a workstation.

28. (Currently Amended) A domain partitioning system comprising:  
a multi-port switch containing a plurality of ports;  
a IO hub controller connected to one of said ports;  
a scalable node controller connected to one of said ports; and  
at least one microprocessor connected to said scalable node controller; wherein  
the domain partitioning system is configured to include a first domain port assignment process for assigning at least a first port of said multi-port switch to a first domain;  
the domain partitioning system is configured to include a second domain port assignment process for assigning at least a second port of the multi-port switch to a second domain of the nodes, the first domain and the second domain having separate and independent memory structures; [[and]]

the domain partitioning system is configured to include a first domain transaction routing process for routing transactions, which are received by said multi-port switch and specify the first domain, to one or more ports assigned to the first domain; and

the domain partitioning system is configured to include a broadcast partitioning process for monitoring broadcast transactions generated for the first domain and transmitting these broadcast transactions to only the one or more ports assigned to the first domain.

29. (Canceled)

30. (Previously Presented) The domain partitioning system of claim 28 further comprising:

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a second domain transaction routing process for routing transactions, which are received by said multi-port switch and specify the second domain, to one or more ports assigned to the second domain.